

## **Remarks**

### **Status of the Claims**

The claims have been amended, representative support for which can be found throughout the specification and the claims as originally filed. The amendments to the claims do not introduce new matter.

### **Drawings**

The drawings were objected to for reciting elements not identified in the drawings (i.e. 30 and 35), for identifying an element not identified in the specification (i.e. 19), and for pointing out two elements with the same number (i.e. 5). Applicants have amended the specification and the drawings herein to attend to these objections.

### **Claim Objections**

Claims 14 and 25 were objected to for spelling errors. These claims have been amended.

Claim 59 was objected to for being essentially a duplicate of claim 58. Applicants have herein cancelled claim 59 without prejudice or disclaimer of the subject matter claimed therein.

### **Invocation of 35 U.S.C. § 112, sixth paragraph.**

A. Claims 1, 16, and 37 allegedly invoked 35 U.S.C. § 112, sixth paragraph for not reciting sufficient structure, material, or acts for achieving the specified function. Applicants have amended the claims to overcome the basis for this allegation. It is respectfully believed that the claims, as amended, do not invoke 35 U.S.C. § 112, sixth paragraph.

B. Claims 2, 3, 17, and 18 allegedly invoked 35 U.S.C. § 112, sixth paragraph for not reciting sufficient structure, material, or acts for achieving the specified function. Applicants have amended the claims to overcome the basis for this allegation. It is respectfully believed that the claims, as amended, do not invoke 35 U.S.C. § 112, sixth paragraph.

C. Claims 6 and 21 allegedly invoked 35 U.S.C. § 112, sixth paragraph for not reciting sufficient structure, material, or acts for achieving the specified function. Applicants have amended the claims to overcome the basis for this allegation. It is respectfully believed that the claims, as amended, do not invoke 35 U.S.C. § 112, sixth paragraph.

Rejection under 35 U.S.C. § 112, second paragraph

Claims 57-59 were rejected for allegedly being indefinite. The Office Action on page 9 alleged that use of substantially similar rendered the claims indefinite. Without acquiescing to the merits of this rejection, Applicants have amended the claims. Accordingly, Applicants assert that the basis for this rejection is moot and respectfully request that this rejection be withdrawn.

Rejection under 35 U.S.C. § 103(a)

A. Claims 1-4, 6-14, 16-19, 21-25, 27-51, 54, 55, and 56 are rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Sammons in view of Tarnopolsky, as evidenced by the “Crystal Quartz” webpage.

Applicants have amended the claims. It is believed that the claimed invention, as amended, is not obvious over the cited references. Particularly, Sammons fails to teach an anode or cathode compartment that is configured to hold at least a portion of a sample, but instead only hold buffer or waste (*see*, Figure 5 of Sammons). Further, the anode and cathode compartments of Sammons do not include a first, second, or third compartment orthogonal to the electric field, as the anode and cathode of Sammons are closed off from any further compartments between the two. Moreover, the claimed invention provides for ion conduits that can establish a different pH in each compartment, a feature absent from Sammons.

The Office Action of pages 10-11 acknowledges that Sammons does not disclose that the material comprising the compartments has a given value for thermal conductivity or specific heat. Tarnopolsky does not recite the missing features identified above from Sammons to disclose all of the elements of the claimed invention. Accordingly, as no combination of the references discloses all of the features of the claimed invention, the claimed invention cannot be obvious. Applicants therefore respectfully request that this rejection be withdrawn.

B. Claims 5 and 20 are rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Sammons in view of Tarnopolsky, as evidenced by the “Crystal Quartz” webpage and in further view of Chlanda.

Claims 5 and 20 depend directly or indirectly from claims 1 and 16. The Office Action relies on Chlanda to recite polyethylene gaskets as a sealing material. Chlanda does not overcome the deficiencies of Sammons and Tarnopolsky to render claim 1 or claim 25 obvious. Accordingly, as claims 5 and 20 depend either directly or indirectly thereon, claims 5 and 20 cannot be obvious either. Applicants therefore respectfully request that this rejection be withdrawn.

C. Claims 15, 26, 52, and 53 are rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Sammons in view of Tarnopolsky, as evidenced by the “Crystal Quartz” webpage and in further view of Egen.

Claims 15, 26, 52, and 53 depend directly or indirectly from claims 1, 16, and 51. The Office Action relies on Egen to recite a multi-modal electrical separator. Egen does not overcome the deficiencies of Sammons and Tarnopolsky to render claim 1, claim 16, or claim 25 obvious. Accordingly, as claims 15, 26, 52, and 53 depend either directly or indirectly thereon, claims 15, 26, 52, and 53 cannot be obvious either. Applicants therefore respectfully request that this rejection be withdrawn.

### Conclusion

In view of the foregoing claim amendments and accompanying remarks, Applicants respectfully request reconsideration and timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicants’ undersigned representative to expedite prosecution.

If there are any additional fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Dated: **October 26, 2010**  
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Respectfully submitted,  
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/Zachary Derbyshire/  

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